NON-PUBLIC?: N
ACCESSION #: 9209300025
LICENSEE EVENT REPORT (LER)

FACILITY NAME: VOGTLE ELECTRIC GENERATING PLANT - U
IT 1 PAGE: 1 OF 3

DOCKET NUMBER: 05000424

TITLE: REACTOR TRIP DUE TO MAIN FEEDWATER PUMP LOSS OF SPEED CONTROL
EVENT DATE: 09/14/92 LER #: 92-008-00 REPORT DATE: 09/25/92

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: MEHDI SHEIBANI, NUCLEAR SAFETY AND TELEPHONE: (706) 826-3209
COMPLIANCE

COMPONENT FAILURE DESCRIPTION:
CAUSE: B SYSTEM: SJ COMPONENT: SC MANUFACTURER: H015
B IG DET W120
REPORTABLE NPRDS: Y
Y

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On September 14, 1992 at 1926 EDT, Unit 1 was operating normally when a steam flow/feed flow mismatch alarm was received. Main feedwater pump (MFP) A speed and discharge pressure rapidly reduced, and the operators manually increased the speed of MFP B to its maximum. Abnormal operating procedure steps were taken to reduce reactor power and turbine power to attain plant operation within the capability of one feedpump. However, a manual reactor trip was initiated at 1928 EDT prior to steam generator (SG) water level reaching the low-low level setpoint. When the SG low-low water level setpoint was reached, the auxiliary feedwater (AFW) pumps started, and normal SG levels were regained.

Troubleshooting determined that the cause of this event was the failure of the MFP A speed controller tracker/driver circuit card. This card supplies power to a slave controller within the automatic speed controller. The card failure caused the slave controller and the automatic speed controller to allow MFP A to slow down due to the loss of speed regulation. The failed circuit card was replaced and will be returned to the vendor for failure analysis.

END OF ABSTRACT

A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 50.73 (a)(2)(iv) because an unplanned actuation of the reactor protection system (RPS) occurred.

B. UNIT STATUS AT TIME OF EVENT

At the time of this event, Unit 1 was operating in Mode 1 (power operation) at 100 percent of rated thermal power. Other than that described herein, there was no inoperable equipment that contributed to the occurrence of this event.

C. DESCRIPTION OF EVENT

On September 14, 1992 at 1926 EDT, Unit 1 was operating normally when a steam flow/feed flow mismatch alarm was received. Main feedwater pump (MFP) A speed and discharge pressure rapidly decreased, and the operators manually increased the speed of MFP B to its maximum. Abnormal operating procedure steps were taken to reduce reactor power and turbine power to attain plant operation within the capability of one feedpump. However, a manual reactor trip was initiated at 1928 EDT prior to steam generator (SG) water level reaching the low-low water level setpoint. When the SG low-low level setpoint was reached, the auxiliary feedwater (AFW) pumps started, and normal SG water levels were regained. Both neutron source range detectors were energized as required, but one of these, N31, malfunctioned and began exhibiting abnormally high values. Redundant monitoring was used to verify reactor core neutron flux, and N31 was removed from service. The turbine driven AFW pump was secured at 2012 EDT, and the motor driven AFW pumps were used to maintain SG water levels in Mode 3 (hot standby).

D. CAUSE OF EVENT

Troubleshooting determined that the cause of this event was the failure of the MFP A speed controller tracker/driver circuit card. This card supplies power to a slave controller within the automatic speed controller. The card failure caused the slave controller and the automatic speed controller to allow MFP A to slow down due to the loss of speed regulation.

Investigation of the N31 source range detector malfunction revealed a failure of the detector itself, concurrent with an electrical grounding condition apparently due to wear on the associated cable.

E. ANALYSIS OF EVENT

During this event, the reactor was manually tripped and AFW pumps actuated as designed to provide feedwater to the SGs, ensuring unit safety during this transient. Based on these considerations, there was no adverse effect on plant safety or the health and safety of the public as a result of this event.

F. CORRECTIVE ACTIONS

The failed circuit card was replaced and will be returned to the vendor for failure analysis. Further corrective actions will be based on the results of this analysis.

The N31 source range detector/cable assembly was replaced and restored to service.

G. ADDITIONAL INFORMATION

1. Failed Components:

Tracker/driver circuit card manufactured by Hagan Controls/Westinghouse. Part No. 2838A45G01

Source range detector manufactured by Westinghouse Electric Corporation. Part No. WL-23706

2. Previous Similar Events:

LER 50-425/1991-005, dated March 6, 1991.
Actions taken to address a different circuit card failure were not applicable to the prevention of the September 14, 1992,

event.

3. Energy Industry Identification System Code:

Main Feedwater System - SJ

Auxiliary Feedwater System - BA

Control Rod Drive System - AA

Nuclear Instrumentation System - IG

ATTACHMENT 1 TO 920930025 PAGE 1 OF 1

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C. K. McCoy Georgia Power
Vice President, Nuclear
Vogtle Project the southern electric system
September 25, 1992

ELV-04040
000612

Docket No. 50-424

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
LICENSEE EVENT REPORT
REACTOR TRIP DUE TO MAIN FEEDWATER
PUMP LOSS OF SPEED CONTROL

In accordance with 10 CFR 50.73, Georgia Power Company (GPC) hereby submits the enclosed report related to an event which occurred on September 14, 1992.

Sincerely,

C. K. McCoy

CKM/NJS

Enclosure: LER 50-424/1992-008

xc: Georgia Power Company
Mr. W. B. Shipman
Mr. M. Sheibani
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebneter, Regional Administrator
Mr. D. S. Hood, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

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